PATENT COOPERATION TREATY

INTERNATIONAL SEARCHING AUTHORITY

REC'D	28	APR	2005
WIPO			PCT

To: AOKI,Atsushi		
A.AOKI, ISHIDA ASSOCIATES, Toranomon Bldg., 5-1, Toranomon 3-chome, Minato-ku, Tok 1058423 Japan	37 :yo	& Mori

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

	,	Date of mailing (day/month/year)	26. 4. 2005
Applicant's or agent's file reference P958-PCT		FOR FURTHER	ACTION See paragraph 2 below
International application No. PCT/JP2005/000448	International filing date	2005	Priority date (day/month/year) 13.01.2004
International Patent Classification (IPC) of Int.Cl. B32B15/08, H05K1	or both national classification /03, 3/18, 3/	tion and IPC '38	
Applicant UBE INDUSTRIES, LTI).		

This c	This opinion contains indications relating to the following items:			
\overline{V}	Box No. I	Basis of the opinion		
_	Box No. II	Priority and industrial applicability		
Г	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability		
Γ-	Box No. IV	Lack of unity of invention		
V	Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
Γ	Box No. VI	Certain documents cited		
Γ.	Box No. VII	Certain defects in the international application		
Г	Box No. VIII	Certain observations on the international application		

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

For further details, see notes to Form PCT/ISA/220.

Date of completion of this opinion 07.04.200	5		
	Authorized officer	4S	8933
T D 44 Office	Takefumi Sato Telephone No. +81-3-3581-1101 Ext.	3474	

Form PCT/ISA/237 (cover sheet) (January 2004)

International application No.

PCT/JP2005/000448

x No. I	Basis of the opinion	
	rd to the language, this opinion has been established on the basis of the international application was filed, unless otherwise indicated under this item.	
Thi	vas filed, unless otherwise indicated and a second responsible from the original language into the factorial solution is specifically and the purposes of internation furnished for the purpose furnished fu	following language ational search (unde
Ru	les 12.3 and 23.1(b)).	
		t to th
With rega	ard to any nucleotide and/or amino acid sequence disclosed in the international application nvention, this opinion has been established on the basis of:	and necessary to un
a. type of	F material	
· 「	a sequence listing	
	table(s) related to the sequence listing	-
h forma	t of material	•
0. 1011111	in written format	
, T	in computer readable form	•
c. time (of filing/furnishing	
C. (III.)	contained in the international application as filed.	
Ė	filed together with the international application in computer readable form.	
	the purposes of search.	
, , ,	furnished subsequently to this Authority for the purposes of search. addition in the case that more than one version or copy of a sequence listing and/or table resulting and the case that more than one version or copy of a sequence listing and/or table resulting and the case that more than one version or copy of a sequence listing and/or table resulting and the case that more than one version or copy of a sequence listing and/or table resulting and the case that more than one version or copy of a sequence listing and/or table resulting and the case that more than one version or copy of a sequence listing and/or table resulting and the case that more than one version or copy of a sequence listing and/or table resulting and the case that more than one version or copy of a sequence listing and/or table resulting and	elating thereto has be
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3. 广 II f i	n addition, in the case that more than one version or copy of a sequence listing and/or table re	elating thereto has be pries is identical to t furnished.
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International application No. PCT/JP2005/000448

Box No. V Reasoned statement un citations and explanation	er Rule 43bis.1(a)(i) with reg as supporting such statement	gard to novelty, inventive step or industrial applicability t
1. Statement		
Novel 02	Claims 3 and 8	· YES
Novelty (N)	Claims $\frac{3 \text{ did } 3}{1,2,4-7}$	NO NO
, , , , , , , , , , , , , , , , , , ,	Claims	YES
Inventive step (IS)	Claims 1-8	NO NO
Industrial applicability (IA)	Claims 1-8	YES
mansurar applications (124)	Claims	NO

2. Citations and explanations

D1:JP 1-133729 A(Nitto Denko corporation) 1989.05.25

D2:JP 11-268183 A(Mitsui Chemicals Inc.)1999.10.05

D3:JP 2001-277424 A (Mitsubishi Shindo Co.Ltd) 2001.10.09

D4:JP 11-158276 A (UBE Industries, Ltd) 1999.06.15

Claim 1 and 2

The subject matter of claim 1 and 2 does not meet the requirement of novelty. D1 discloses a laminate consisting of polyimide film, silica and copper layer by wet plating process.

D2 discloses a laminate consisting of polyimide film, silica or alumina and copper layer by wet plating process.

D3 discloses a laminate consisting of polyimide film, silica and copper layer by wet plating process.

D4 discloses a laminate consisting of polyimide film, silica and copper layer. D4 does not disclose wet plating process, but it must be assumed that there is no difference between laminate claimed in the Claim 4 and disclosed in D4.

Claim 3

The subject matter of claim 3 does not appear to involve an inventive step in view of the D1-D4. Because it is generally known for the man skilled in the art that laminated body is subjected to heat treatment.

Claim 4 and 7

The subject matter of claim 4 does not meet the requirement of novelty. As the laminate is the same, laminate disclosed in D1-D4 has the same property(initial and after aging treatment in 150° C air peel strength in a 90° peel test.).

International application No. PCT/JP2005/000448

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: V

Claim 5

The subject matter of claim 5 does not meet the requirement of novelty. D1-D4 does not disclose plating process, but it must be assumed that there is no difference between laminate claimed in the Claim 5 and disclosed in D1-D4.

Claim 6

The subject matter of claim 6 does not meet the requirement of novelty. D4 discloses that the thermal expansion coefficient of polyimide is 1.5 $\times 10^{-5}$ cm/cm/°C.

Claim 8

The subject matter of claim 8 does not appear to involve an inventive step in view of the D1-D4. Because it is generally known for the man skilled in the art to make circuit board obtained by a process determined by claim 8.

Form PCT/ISA/237 (Supplemental Box) (January 2004)

PATENT COOPERATION TREATY

INTERNATIONAL SEARCHING AUTHORITY

REC'D	28	APR	2005		
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A.AOKI, ISHIDA ASSOCIATES, Toranomon Bldg., 5-1, Toranomon 3-chome, Minato-ku, Tok 1058423 Japan	37 cyo	& Mori

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

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		Date of mailing (day/month/year)	26. 4. 2005
Applicant's or agent's file reference P958-PCT		FOR FURTHER ACTION See paragraph 2 below	
International application No. International filing da PCT/JP2005/000448 11.01			Priority date (day/month/year) 13.01.2004
International Patent Classification (IPC) or both national classification (ICl. B32B15/08, H05K1/03, 3/18, 3/		tion and IPC	
Applicant UBE INDUSTRIES, LTI			
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l.	This o	This opinion contains indications relating to the following items:		
		-	Basis of the opinion	
	Γ		Priority and industrial applicability	
	厂	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	
	!	Box No. IV	Lack of unity of invention	
	V	Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	
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For further options, see Form PCT/ISA/220.

For further details, see notes to Form PCT/ISA/220.

Date of completion of this opinion 07.04.2003	5		
	Authorized officer	4S	8933
Jonan Patent Office	Takefumi Sato Telephone No. +81-3-3581-1101 Ext.	3474	

Form PCT/ISA/237 (cover sheet) (January 2004)

International application No.

PCT/JP2005/000448

No. I	Basis of the opinion
	rd to the language, this opinion has been established on the basis of the international application in the language is a filed, unless otherwise indicated under this item.
This	as filed, unless otherwise indicates areas areas areas filed, unless otherwise into the following language of opinion has been established on the basis of a translation furnished for the purposes of international search (und, which is the language of a translation furnished for the purposes of international search (und
Rul	les 12.3 and 23.1(b)).
With rega	rd to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to t nvention, this opinion has been established on the basis of:
a. type of	material
· [a sequence listing
Г	table(s) related to the sequence listing
h format	of material
0. IOIIIA	in written format
r	in computer readable form
c, time c	of filing/furnishing
Г	contained in the international application as filed.
	t and instance in computer readable form.
	filed together with the international application in computer relations are
Г	filed together with the international application in computer readable form. furnished subsequently to this Authority for the purposes of search.
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International application No. PCT/JP2005/000448

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; Box No. V citations and explanations supporting such statement Statement YES 3 and 8 Claims Novelty (N) NO 1, 2, 4-7Claims YES Claims Inventive step (IS) Claims YES Claims Industrial applicability (IA) NO. Claims

2. Citations and explanations

D1:JP 1-133729 A(Nitto Denko corporation) 1989.05.25

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D3:JP 2001-277424 A (Mitsubishi Shindo Co.Ltd) 2001.10.09

D4:JP 11-158276 A (UBE Industries, Ltd) 1999.06.15

Claim 1 and 2

The subject matter of claim 1 and 2 does not meet the requirement of novelty. D1 discloses a laminate consisting of polyimide film, silica and copper layer by wet plating process.

D2 discloses a laminate consisting of polyimide film, silica or alumina and copper layer by wet plating process.

D3 discloses a laminate consisting of polyimide film, silica and copper layer by wet plating process.

D4 discloses a laminate consisting of polyimide film, silica and copper layer. D4 does not disclose wet plating process; but it must be assumed that there is no difference between laminate claimed in the Claim 4 and disclosed in D4.

Claim 3

The subject matter of claim 3 does not appear to involve an inventive step in view of the D1-D4. Because it is generally known for the man skilled in the art that laminated body is subjected to heat treatment.

Claim 4 and 7

The subject matter of claim 4 does not meet the requirement of novelty. As the laminate is the same, laminate disclosed in D1-D4 has the same property(initial and after aging treatment in 150% air peel strength in a 90° peel test.).

International application No. PCT/JP2005/000448

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: V

Claim 5

The subject matter of claim 5 does not meet the requirement of novelty. D1-D4 does not disclose plating process, but it must be assumed that there is no difference between laminate claimed in the Claim 5 and disclosed in D1-D4.

Claim 6

The subject matter of claim 6 does not meet the requirement of novelty. D4 discloses that the thermal expansion coefficient of polyimide is 1.5 $\times 10^{-5}$ cm/cm/°C.

Claim 8

The subject matter of claim 8 does not appear to involve an inventive step in view of the D1-D4. Because it is generally known for the man skilled in the art to make circuit board obtained by a process determined by claim 8.

Form PCT/ISA/237 (Supplemental Box) (January 2004)